



EDUCATION SERVICES

DevOps Course Catalog

DevOps Education

The need for speed has never been more urgent, organisations are under ever more pressure to deliver new digital services in an increasingly short timeframe.

Lack of in-house skills is, in the main, the major obstacle in achieving those outcomes and this is hindering organisational ability to scale DevOps practices enterprise-wide and achieve their ambitious digital transformation goals.



Transformation

A recent survey from Boomi highlights the top initiatives clients are looking at when prioritizing transformation endeavors, with DevOps and DevSecOps being front of mind.

Note that lack of skills is the main barrier to achieving those outcomes...

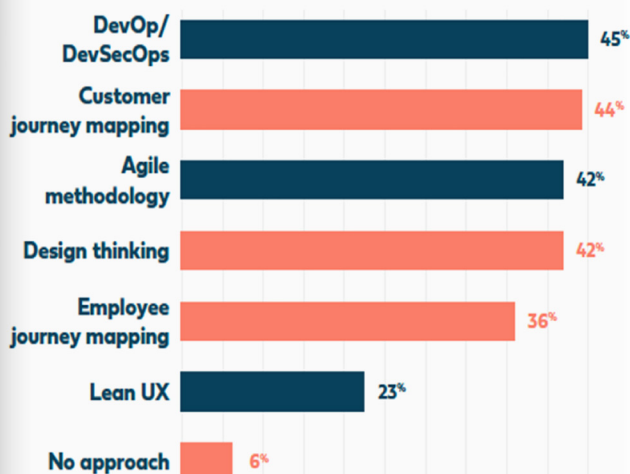
Lack of Skills

This places a huge burden on Developers, DevOps and SRE's who must continue to meet their Service Level Objective's, while driving shorter development cycles and innovating faster than ever before.

DevOps is critical in meeting the rising pressure to innovate faster...

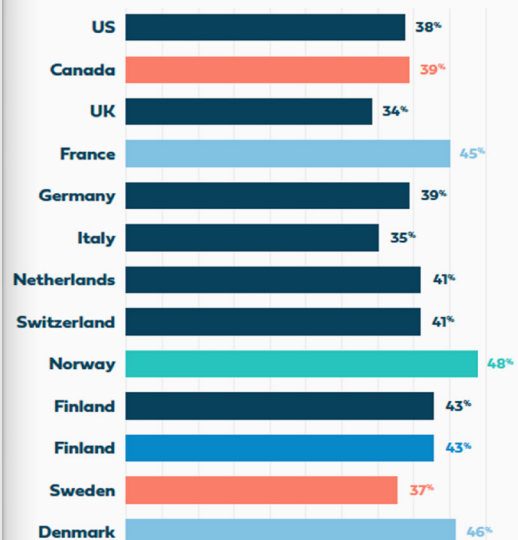
But as Developers, DevOps and SRE's battle to keep up the pace, the complexity of the toolchain set increases.

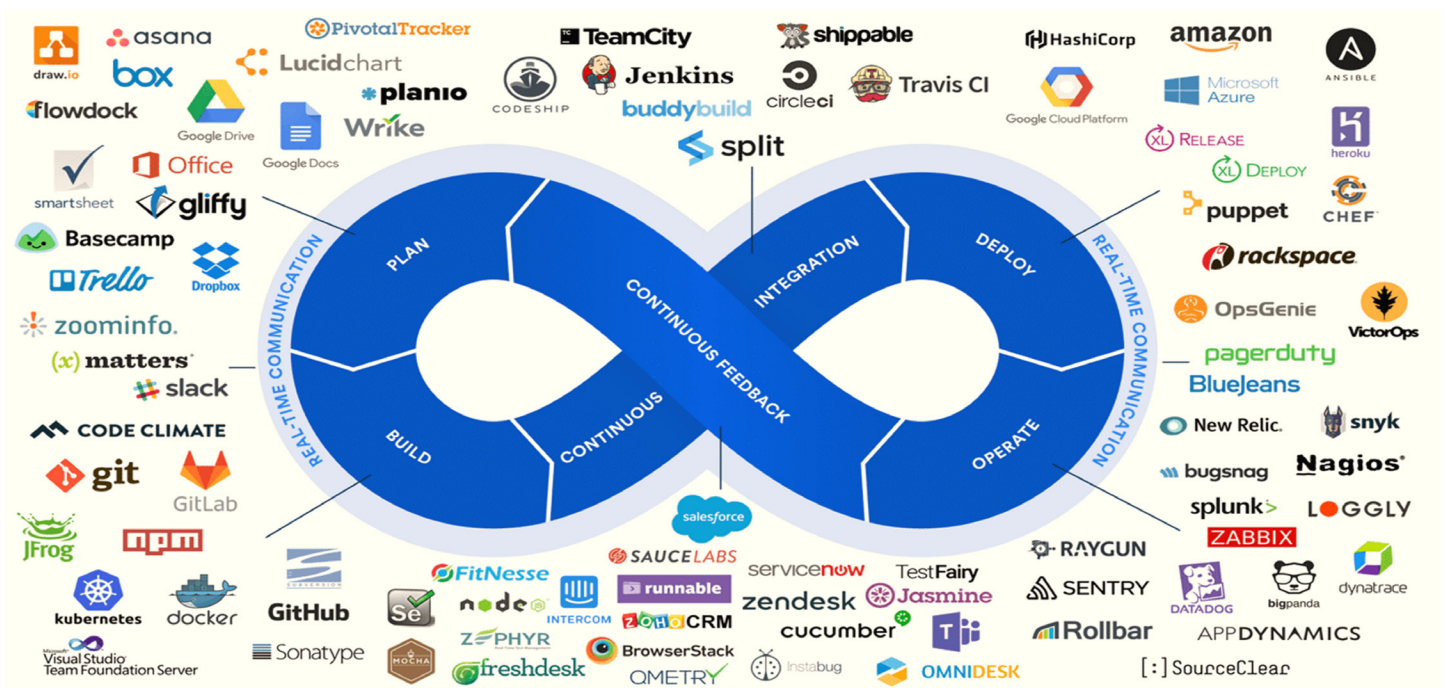
TOP APPROACHES TO TRANSFORMATION



BARRIERS TO TRANSFORMATION, NORTH AMERICA AND EUROPE

■ Insufficient in-house skills ■ Unwillingness to spend required amount
■ Lack of a clear direction/focus of the efforts
■ Lack of immediate tangible returns ■ Lack of a clear strategy
■ Employee buy-in





Complexity

The number of products in the toolchain set increases and becomes more fragmented as organisational units onboard more and more tool's to help manage the speed of business.

This in-itself drives complexity and impedes an organization's ability to accelerate innovation at enterprise-wide scale.

Unified Toolsets

To keep up with the speed of innovation organization's need to find a way to unify their toolchain sets and provide more intuitive solutions that enable teams to perform key activities with ease on fit for purpose infrastructure. This enables the business to shorten development cycles, release faster, and double down on effort that provides more value-based outcomes for the business.

Developer Ready Infrastructure

DevOps-ready platforms enable organisations to run hyper-scaler-specific development stacks on Dell Technologies hyperconverged infrastructure and storage platforms to deliver container orchestration on intelligent, automated infrastructure. Together DevOps-ready platforms running the hyper-scaler stacks accelerate ITs ability to provide infrastructure-as-code and empower their DevOps teams to be the innovation engine for their businesses.

Education Services

Education for DevOps-ready platforms support every major hyper-scaler and container orchestration platform on the market, including Amazon EKS-Anywhere, Google Anthos, Microsoft AKS on Azure Stack HCI, Red Hat OpenShift, Suse Rancher, VMware Tanzu and Mirantis.. Education Services provide training across the infrastructure stack, container platform of choice and an array of tool chain sets.

Skills Analysis

Our skills analysis and future role planning activities allow organisations to glean insights into the skills of multiple DevOps tools and products helping them make informed decisions when it comes to modernizing and unifying the tool chain stack as they scale across the Enterprise on Dell Developer Ready Infrastructure.

Accelerate Innovation

By learning how to rapidly provision compute and storage resources and provide infrastructure-as-code while effortlessly automating DevOps processes, empowering developers to become an innovation engine for their business.

Simplify Cloud Operations

With flexibility to run multiple container orchestration products on a single DevOps-ready Dell platform for their application modernization journey, organisations can learn to run multi-cloud container services for modern cloud native architecture.

Consulting

Dell Technologies Consulting Services offers DevOps Transformation services to help you innovate and respond to an ever-changing marketplace and technology landscape. Agile DevOps services enable you to build and operate a multi cloud platform that employs the architectural blueprints and operating patterns used by leading public cloud providers like Amazon.

Get Started...

- Building automated, continuous delivery platforms
- Developing customer capabilities and capacity
- Re-engineering processes based on Lean and DevOps
- Piloting digital operating patterns, team structures, and management methods.

Key Benefits with Consulting

- Accelerated time-to-value for DevOps deployment
- Improved productivity and efficiency
- Increased resiliency, agility, and quality
- Enhanced standards, security and compliance adherence



Residency

Residency Services provide specialized expertise to help organizations in a number of ways, including:

- ✓ Adopt new technology quickly
- ✓ Ease new technology transition for maximized utilization and minimal business interruption
- ✓ Pair solutions to the business environment; optimize IT configurations, processes and procedures
- ✓ Keep technology running at peak performance
- ✓ Best practice sharing to enhance internal IT capabilities

DevOps Resident

Expertise in..

MultiCloud platforms: Azure, AWS, GCP

Container platforms: Tanzu, OpenShift, Cloud Foundry

Automation tools: Chef, Ansible, Terraform

Pipeline and orchestration: Jenkins, Concourse ServiceNow

With rounded expertise in Cloud Native methodologies and toolsets Resident help set you up for success, and more to keep you there.



Key Benefits

✓ **Unmatched Expertise**

Residents are highly skilled and certified engineers that specialize in specific technology

✓ **Measurable Results**

- Improved technology performance
- Increase in technology utilization
- Reduction in IT service delivery cost
- Improvement in IT staff efficiency

✓ **Perfect Match for each customer**

- Flexibility to meet unique needs
- Backed by Dell global network
- Available in 100+ countries
- Rigorous resource selection process
- In-person or virtual delivery

DevOps

Microservices Engineering Bootcamp

Master technical practices and tooling fundamentals to utilize Microservices as a foundation for IT architecture, software engineering, and service/release delivery. For IT professionals, developers, software engineers, and DevOps practitioners – microservices training provides the technical practices and tooling fundamentals necessary to begin realizing the benefits of microservices as a foundation for IT architecture, software engineering, and service/release delivery. The workshop includes 16 hands-on exercises which give you real-world practice on the engineering tools and skills a team needs in order to realistically implement your own flavor of Microservices architecture patterns so you can address the team needs of your own organization.

Course Code: [Call for details](#)

Delivery Type	Length
Traditional Classroom	3 Days
Virtual Classroom	3 Days

Adopting DevOps in an ITIL Environment

This highly practical course is designed to take an organization working in an ITIL environment through the steps to adopting DevOps and choice of a first value stream to work with.

Course Code: [DEVOPSITIL](#)

Delivery Type	Length
Traditional Classroom	2 Days
Virtual Classroom	2 Days

DevOps Foundation

This course is an introduction to DevOps. The course emphasizes communication, collaboration, integration, and automation to improve the workflow between developers and IT operations professionals. Improved workflows lead to more opportunities to design software and services in a more agile fashion which can only be good for customers. This course (based on the DevOps Institute syllabus) is intended as a basis for discovering the most important DevOps concepts and to understand the principles and methods behind this. The course will leave you with the inspiration to be the advocate of change;

The idea is that what you have learned about DevOps – and continue to learn – is shared with others so that you can guide them.

Course Code: [DEVOPSF](#) **Version:** 3.3

Delivery Type	Length
Traditional Classroom	2 Days
Virtual Classroom	2 Days

DevOps Implementation Essentials

DevOps (development and operations) describes a type of agile relationship between development and IT operations. The goal of DevOps is to improve this relationship by advocating better communication and collaboration between business units. Adoption of DevOps can help your organization to:

- Deploy updates more frequently and efficiently to ensure faster time to market
- Lower the failure rate of new releases
- Improve mean time to recovery
- Shorten lead time

In this course, you will learn to approach DevOps as an IT mindset that encourages communication, collaboration, integration, and automation between software developers and IT operations in order to improve the speed and quality of delivering viable software solutions. You will also learn to further streamline the movement of software change through the Analyze, Plan, Design-Build-Test, and Deploy-Maintain stages, while empowering cross-functional teams with full ownership of software applications—from design through production support.

Course Code: [GK2625](#)

Delivery Type	Length
Traditional Classroom	3 Days
Virtual Classroom	3 Days

Security

DevSecOps Foundation

Integrating security practices into DevOps, such as Security as Code, is a way for security practitioners to operate and contribute value with less friction. Security practices must adapt dynamically to ensure data security and privacy issues are not left behind in the fast-paced world of DevOps.

Course Code: DEVSOF

Delivery Type	Length
Traditional Classroom	2 Days
Virtual Classroom	2 Days

DevSecOps Engineering

A DevSecOps Engineer is an IT Security professional who is skilled at “security as code” with the intent of making security and compliance consumable.

Course Code: DEVSOE

Delivery Type	Length
Traditional Classroom	2 Days
Virtual Classroom	2 Days

CI/CD

Git Essentials Training

This course is divided into a number of individual modules, many modules have an associated lab exercise that will help to reinforce the learning experience. The Clearvision Git Essentials training course provides a comprehensive understanding of basic Git concepts and looks at the different ways Git can be used and implemented.

Course Code: GITBAS

Delivery Type	Length
Traditional Classroom	1 Day
Virtual Classroom	1 Day

Git Advanced Training

This course is divided into a number of individual modules, many modules have an associated lab exercise that will help to reinforce the learning experience. The Clearvision Git advanced training course provides an understanding of advanced Git concepts and looks at configuration and functionality.

Course Code: GITADV

Delivery Type	Length
Traditional Classroom	1 Day
Virtual Classroom	1 Day

Beginning Jenkins

This course complies with instructional designing principles for all the 6 lessons. This will ensure that you repeat and reinforce your gained knowledge at every step. Each and every minute spent during this 2-day course will incrementally take you to a next level.

Course Code: LO035423

Delivery Type	Length
Traditional Classroom	2 Days
Virtual Classroom	2 Days

Red Hat DevOps Pipelines and Processes: CI/CD with Jenkins, Git, and Test Driven Development

Build essential skills to implement agile and DevOps development processes and workflows. DevOps practices have enabled organizations to undergo a digital transformation, moving from a monolithic waterfall approach to a rapidly deploying cloud-based agile process. This transformation requires a team of developers trained to use tools that enable them to spend more time coding and testing and less time troubleshooting. Red Hat DevOps Pipelines and Processes: CI/CD with Jenkins, Git, and Test-Driven Development (TDD) is a practical introduction to DevOps for developers that teaches students the necessary skills and technologies for automated building and deploying of cloud-native applications.

Course Code: DO400

Delivery Type	Length
Traditional Classroom	4 Days
Virtual Classroom	4 Days

Test

Introduction to Automation Testing

Using a mix of classroom presentation, instructor-led discussion and individual practical exercises, this one-day course has been designed to provide testers with good, basic understanding of test automation. This one-day course covers the following topics: What is test automation? When to automate and when not to automate. Automation approaches including frameworks, platform tools and simple record and replay. Demonstration of some of the tools that are available.

Course Code: IA

Delivery Type	Length
Traditional Classroom	1 Day
Virtual Classroom	1 Day

Continuous Testing Foundation

Continuous Testing enables faster, higher quality releases and reduced costs by seamlessly integrating into the Continuous Delivery process to identify and address risks at all stages of the development pipeline thereby minimizing business risk and impact on customers.

Course Code: CTF

Delivery Type	Length
Traditional Classroom	2 Days
Virtual Classroom	2 Days

Selenium Fundamentals

Automated testing is the way forward. It is faster than manual testing, and you can easily rerun your tests at no extra cost. With this course, you'll learn how to use Selenium to efficiently test your own applications. There are several challenges when writing automated tests for web applications: selecting an adequate test framework, using appropriate selectors to avoid flaky tests, and building a good testing framework. This course walks you through these challenges and provides you with the knowledge to overcome hurdles in testing by developing stable and effective testing solutions. You will learn the complete process of automated testing, such as configuring your environment, creating and running automated tests, analyzing reports, and troubleshooting errors by using a Selenium Grid.

Course Code: LO035431

Delivery Type	Length
Traditional Classroom	3 Days
Virtual Classroom	3 Days

Containers

Introduction to Containers, Kubernetes, and Red Hat OpenShift

Learn to build and manage containers for deployment on a Kubernetes and Red Hat OpenShift cluster. Introduction to Containers, Kubernetes, and Red Hat OpenShift (DO180) helps you build core knowledge in managing containers through hands-on experience with containers, Kubernetes, and the Red Hat® OpenShift® Container Platform. These skills are needed for multiple roles, including developers, administrators, and site reliability engineers. This course is based on Red Hat OpenShift Container Platform 4.2.

Course Code: DO180

Delivery Type	Length
Traditional Classroom	3 Days
Virtual Classroom	3 Days

VMware Tanzu Kubernetes Grid: Install, Configure, Manage

During this three-day VMware Tanzu course, you focus on installing VMware Tanzu™ Kubernetes Grid™ on a VMware vSphere® environment and then provisioning and managing Tanzu Kubernetes clusters. The concepts learned in this course should be transferable for users who need to install Tanzu Kubernetes Grid on other supported clouds.

Course Code: VMTKGICM **Version:** 1.3

Delivery Type	Length
Traditional Classroom	3 Days
Virtual Classroom	3 Days

Running Containers on Amazon Elastic Kubernetes Service (Amazon EKS)

Amazon EKS makes it easy for you to run Kubernetes on AWS without needing to install, operate, and maintain your own Kubernetes control plane. In this course, you will learn container management and orchestration for Kubernetes using Amazon EKS. You will build an Amazon EKS cluster, configure the environment, deploy the cluster, and then add applications to your cluster. You will manage container images using Amazon Elastic Container Registry (ECR) and learn how to automate application deployment. You will deploy applications using CI/CD tools. You will learn how to monitor and scale your environment by using metrics, logging, tracing, and horizontal/vertical scaling. You will learn how to design and manage a large container environment by designing for efficiency, cost, and resiliency. You will configure AWS networking services to support the cluster and learn how to secure your Amazon EKS environment.

Course Code: GK7381

Delivery Type	Length
Traditional Classroom	3 Days
Virtual Classroom	3 Days

Mirantis Kubernetes Engine (MKE)

In this product-focused course, you'll deep dive into all the features of Mirantis Kubernetes Engine, and discover how it simplifies, secures and accelerates Kubernetes and Swarm cluster management at enterprise scale. We'll discuss installing and configuring MKE, managing MKE user permissions and orchestrator resources, and advanced networking features included in the platform, as well as MKE troubleshooting and support.

Course Code: CN212

Delivery Type	Length
Traditional Classroom	1 Day
Virtual Classroom	1 Day

Containers

SUSE Rancher

This course is designed for system administrators and other persons responsible for provisioning and administering Kubernetes clusters with SUSE Rancher. This three day course is designed for system administrators responsible for deploying and administering multiple Kubernetes cluster distributions with SUSE Rancher. The course begins with an introduction to SUSE Rancher and its architecture. Students will then learn how to access SUSE Rancher's updated graphical user interface. During the course an existing Kubernetes cluster will be registered and a new RKE cluster will be provisioned with SUSE Rancher and Kubernetes cluster administrative activities will be introduced. The course also covers Kubernetes cluster management and hosted Kubernetes provider's deployments in the public clouds. The course includes presentations about the provisioning and administration capabilities of SUSE Rancher and extensive hands-on experience with lab exercises. This course prepares students for the SCA in SUSE Rancher 2.6 exam.

Course Code: [Call for details](#)

Delivery Type	Length
Traditional Classroom	Call for details
Virtual Classroom	Call for details

Automation

Ansible on Dell

Students will be encouraged to share with the class the manual ways they are currently doing work in an effort to create highly applicable Ansible solutions. Through these demonstrations, students will learn how to use code to extend structure and consistency to their specific job operations.

By the conclusion of the course, students will have an understanding of how to begin applying Ansible to nearly all Dell systems they interact with.

Course Code: CN212

Delivery Type	Length
Traditional Classroom	1 Day
Virtual Classroom	1 Day

Monitor

Splunk Developer

- Introduction to Dashboards
- Dynamic Dashboards
- Advanced Dashboards and Visualizations
- Building Splunk Apps

Course Code: [Call for details](#)

Delivery Type	Length
Traditional Classroom	4 Days
Virtual Classroom	4 Days

Mirantis Kubernetes Engine (MKE)

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Course Code: [CN212](#)

Delivery Type	Length
Traditional Classroom	3 Days
Virtual Classroom	3 Days

Disclaimer

1. Prices may change without notification.
2. Prices and availability vary by region. Ensure that you have your country selected in "My Preferences" – found in the top navigation at Education.dellemc.com – when clicking on the links in this catalog.
3. Engage your local Education Services Account Manager for local pricing information and class scheduling.
4. The package content can change without notification, verify the last update at Education.dellemc.com.
5. All the values are expressed in Length Values from US and may change without any previous notification. Please visit Education.dellemc.com for the latest update.

Contact us online at education.dellemc.com/content/contactus.

Multiple Delivery Methods

To fit learners' schedules, we strive to use multiple delivery methods where possible. Here are the learning modalities offered:

Traditional Classroom – In-person classroom training delivered by an instructor, with students in the same facility/room.

Virtual Classroom – Live online instruction delivered by an instructor using Adobe Connect, Skype, video conference or other remote connection methods.

Learning Accelerator Program

The Learning Accelerator Program is a comprehensive program that drives individual learning and closes the skills gaps that impede an organization's ability to adopt new technologies. It is a top-down consultative approach that defines a customer's learning needs, develops learning goals for each member of an organization, and aligns those learning goals to the organization's desired business outcomes. Our learning experts use proven methodologies to help customers realize the full value of their investments in both their technology and people. Contact an Education Account Manager or visit our [website](#) for more information.

Connect with an Education Account Manager

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